

# COVER UP! HONG KONG'S REGULATION OF EXCHANGE-TRADED WARRANTS



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*Regulatory interest in financial derivatives centres on how unforeseen shocks might affect their value. Current concerns arise from prolific growth in the use of derivatives by financial institutions for credit risk transfer, the scale of which some national authorities find disquieting. However, attention in Hong Kong applies to a wholly different setting, springing from its prominent market in listed covered warrants. The regulatory regime for these instruments is fractured, porous, and conflicts with precepts of international practice to which the territory nonetheless subscribes. Primary oversight is entrusted to the Stock Exchange of Hong Kong, a body neither equipped nor inclined to perform the function authoritatively. Slender, variable disclosure requirements do little to inform participants as to the balance of risk and reward inherent in these products, and since most warrant buyers are non-professional individuals, a pronounced market correction would create a significant moral hazard for Hong Kong's government.*

## I. Introduction

"It is usually agreed that casinos should, in the public interest, be inaccessible and expensive. And the same is true perhaps of Stock Exchanges."<sup>1</sup>

Financial derivative instruments are widely held and traded in the Hong Kong Special Administrative Region (Hong Kong), as in all other substantial financial hubs, and none of the regulatory and legal concerns arising from their use by financial institutions differ substantively from elsewhere. Hong Kong's response to the regulatory demands of these instruments is typical of a harmonised approach now promoted by most advanced economies and to which the Hong Kong Monetary Authority (HKMA) heartily subscribes, all driven by the wish to avoid financial collapse or ensuing contagion occasionally associated with derivative use in well-publicised cases since the 1980s.<sup>2</sup>

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<sup>1</sup> J.M. Keynes, *The General Theory of Employment, Interest and Money* (London: Macmillan, 1936) Ch 12, p 159.

<sup>2</sup> See nn 9 and 71 below.

However, Hong Kong differs in one important respect from other jurisdictions, in that since the early 1990s it has housed a disproportionately high participation in financial derivatives by non-professional individuals, currently through exchange-traded option contracts that give leveraged exposure linked to well known underlying assets, most commonly Hong Kong listed equities or indexes. Growth in issuance and trading of these instruments in their present form made the territory's stock exchange the world's most active single market by turnover in third party covered warrants in both 2003 and 2004. Only Germany serves as a domicile for trading of the same order as Hong Kong despite its population being twelve times as large and having been a traditional centre for warrant activity since the 1970s.

This phenomenon is surprisingly neglected in the territory's approach to investor protection, risk management and capital adequacy. While the derivatives bought and sold in Hong Kong may not be unusually complex, they demand both adequate disclosure and sufficient skills among issuers in risk management, all of which the authorities are obliged to oversee. Yet it is unclear that Hong Kong's division of regulatory responsibility, application of supervisory resources or standards for disclosure would cope confidently with the effects on the warrant market of systemic shocks. Hong Kong's government could then be exposed to moral hazard arising from the radical precedent of its 1998 stock market intervention.

This article introduces the classes of financial derivative within its theme and explains the precepts and effects of the regulation of such instruments. Next, it describes the unusual characteristics of certain of Hong Kong's derivatives activity and the reasons for recent rapid growth in the market for option-based securities, before analysing how the territory supervises the sale, listing and trading of these instruments and the credit risks associated with their sponsors. The concluding section suggests that the system contains latent instability of which its non-professional users are largely unaware and that the stock exchange's quasi-regulatory responsibility for these derivatives be reconsidered.<sup>3</sup>

<sup>3</sup> A Securities and Futures Commission (SFC) November 2005 report, *A Healthy Market for Informed Investors* (hereafter referred to as the "SFC Report") addresses concerns over "certain market practices" and the "suitability" of covered warrants for small investors, see ss 1–8, p 12. It contains six proposals for reform: while two are relevant to the thrust of this article, none address its main contentions: the report is available at <https://eapp01.sfc.hk/apps/som/dwreview.nsf/eng/main> (visited 15 Mar 2006), see s VI(a) below.

## II. Classes of derivative<sup>4</sup>

Tradable derivatives have been known for centuries in forms that resemble instruments used today.<sup>5</sup> Forward commodity contracts were bought and sold in medieval Europe and organised futures or options markets existed in Japan by the late sixteenth century. Financial derivative instruments now appear and fade with fashion and are more easily characterised by use or availability than defined as a market segment. They draw on the language of differential calculus and many are priced using differential mathematical functions, implying instruments whose value is determined by reference to an underlying contract, security or index, although this is not always true and the original integral may be lost to history. The law's challenge is to match the market's innovation, and be "brought into harmony with the legitimate needs of commerce."<sup>6</sup>

All derivatives are evidenced by private law contracts, many agreed separately among their respective parties. Most are subject to standardisation of documentation that results from their either being traded on an organised exchange or conforming to the common practice successfully promoted by the sector's self-regulatory organisation, the International Swaps and Derivatives Association Inc (ISDA). They can be distilled into a matrix of four types according to whether they are dealt directly between counterparties "over-the-counter" (OTC) or on an organised exchange, and as between forward or option-based contracts. For example, all swaps are OTC derivatives; all futures and many option contracts are exchange-traded. Warrants represent one category of tradable, option-based contract.<sup>7</sup>

<sup>4</sup> This section provides background for later analysis and is not comprehensive.

<sup>5</sup> In the 4th century BCE, Aristotle described an option strategy involving the forward purchase of olive oil pressing capacity (as a cautionary tale of monopoly power); see *Politics* I xi: 4 (1259<sup>a</sup>6-23). Simple cuneiform contracts for the sale of goods and chattels for future delivery existed in the ancient Middle East in the early 2nd millennium BCE, and it has been asserted that they bear an unappreciated closeness to modern instruments, see E. Swan, *Building the Global Market: a 4,000 Year History of Derivatives* (London: Kluwer, 2000), pp 31-48.

<sup>6</sup> See R. Goode, *Contracts and Markets: The Challenges Confronting Public and Private Law in Commercial Law in the Next Millennium*, 1997 Hamlyn Lectures (London: Sweet & Maxwell, 1998), p 57, writing of an English court decision on derivatives widely felt to lack commercial insight, see s VI(B) and n 115 below.

<sup>7</sup> Exchange-traded products are bought and sold through an organised share, commodity or futures market, in some cases at a single physical location, entailing centralised clearing, settlement, and reporting of trades and prevailing prices. Settlement of exchange traded derivatives was once made by physical delivery of underlying assets, the result of the markets' agricultural origins when physical delivery was typically desired, but the trend since the 1980s has been towards financial contracts being settled for cash, as with the instruments considered in this article. The trend to cash settlement was prompted by cases such as the Hunt Brothers' 1970s attempt to corner the world market in silver bullion. Cash settlement lessens scope for market manipulation, prevents leveraged contracts becoming impossible to settle for lack of deliverable assets or willing sellers of such assets, and limits distortions between the terms of derivative contracts and their respective underlying assets, see s V(D) below. Over-the-counter derivative contracts are negotiated, documented and settled directly among financial institutions, their clients and in some cases by agents, in all cases without connection to an organised

### A. Differences Between Forwards and Options

The simplest of three main differences between forwards and options is the volition invested in the option holder, that is, an entitlement in respect of an underlying asset rather than an obligation. A second distinction appears in the mathematical relationship between each instrument and its underlying asset. Forward-based derivatives are linear functions of an underlying asset, so that a price change in the latter causes a proportionately identical change in the prevailing price of the derivative. Option-based derivatives are non-linear functions of their corresponding underlying assets, so that a change in an underlying asset's price may cause a far greater proportionate change in the respective derivative's prevailing value. Last, option-based derivatives are asymmetric functions of the value of the underlying asset or instrument, in that the magnitude of price gains and losses in the derivative are unlike, given price gains or losses of equal size in the underlying instrument.

Price asymmetry will typically increase the leverage associated with the non-linearity of all kinds of options.<sup>8</sup> The leverage implicit in option-based derivatives is the justification for mark-to-market margin requirements typical of futures exchanges, and helps explain notorious cases such as the near-collapse of Metallgesellschaft AG in 1993 and the fall of Barings group in 1995. In each case option-based trading losses resulted in substantial margin calls on the companies' respective US and Singapore subsidiaries, which for Barings exceeded the group's total resources.<sup>9</sup>

Even if these elemental qualities were widely understood, it would be unclear that retail participants have ready access to reasonably presented information sufficient to judge the expected risk and return associated with leveraged option-based financial derivatives, and their relationship to the price behaviour of underlying assets or to competing instruments based on

exchange. Derivatives based on forward contracts require the user to buy or sell an underlying asset at a certain price upon the contract's expiry on a specific forthcoming date. Futures are those forward contracts that are traded on an organised exchange. Options contracts entitle a holder to elect to sell or buy an underlying asset at a certain price on or before a specific forthcoming date. In their elemental form, options are either calls or puts, that convey the right to buy and sell, respectively, the subject asset, but in neither case the obligation so to do. Many common option transactions involve combinations of calls and puts in ways that produce a return in specified conditions, for example, if underlying asset prices remain within or outside a given path, or above or below a given level.

<sup>8</sup> Leverage refers to a derivative's risk-return characteristics compared to those of its underlying asset.

<sup>9</sup> Metallgesellschaft lost US\$1.3 billion from incompetent hedging, seeking to hedge long-dated option risks using exchange-traded forward contracts. Barings' failures of risk management and regulation are well-documented in reported English cases, notably *Re Barings plc and Others (No 5)*, *Secretary of State for Trade and Industry v Baker and Others (No 5)* [2000] 1 BCLC 433, and in the *Report of the UK Board of Banking Supervision Enquiry into the Circumstances of the Collapse of Barings*, London, HMSO, 1995. The latter's findings quickly proved influential in supervisory reform. See s II(E) below.

the same underlying assets.<sup>10</sup> For such participants, most of whom are assumed to have no hedging objectives,<sup>11</sup> trading in leveraged option-based derivatives is thus economically distinct from gambling.<sup>12</sup>

### B. Warrants

Warrants are tradable option contracts issued for profit or to lessen costs by companies, banks or investors, either as single transactions or in structured or ongoing financing transactions. Usually listed and traded on an organised exchange, warrants are issued either for cash, or in part satisfaction of payment in a larger transaction. Simple warrants convey the right but not the obligation to buy (call warrants) or sell (put warrants) an underlying asset or its cash equivalent at a predetermined price. Many warrants are sophisticated combinations of calls and puts intended to deliver a particular risk-return combination to the holder, for example, to produce a defined return if a share price or index follows a specified path over a given period. Warrant issues have lives ranging from months to several years. Any single warrant is cancelled upon being exercised according to its commercial terms. They differ in style, as with all option contracts. The most common contain American style options that may be exercised at any time before expiry, or European style options that can be exercised only at expiry.

The markets for warrants are linked to many types of underlying assets and indexes, and most warrants have no connection with any other new issue. They are traditionally popular in markets in Germany, Italy and Switzerland, and have become so in recent years in Hong Kong. Their appeal matches that of all option-based instruments, to offer a leveraged risk exposure relative to

<sup>10</sup> "Retail" means a non-professional party whose role in a transaction is presumed to be modest. It is defined in leading common law jurisdictions by inference, such as an upper monetary limit to an investment, or the fact of the protagonist not being deemed a sophisticated or professional investor, see SFO Cap 571, Sch 1 Part 1 s 1 and Securities and Futures (Professional Investor) Rules, Cap 571V s 3. The weight of modern investor protection law and regulation, including statutory deposit insurance, hopes to protect the retail segment. SFO s 4 includes among the regulatory objectives of the SFC references to the interest of the "investing public".

<sup>11</sup> Of a sample of individual warrant users polled in late 2005 for the SFC, 8.4% dealt in warrants for purposes of "long-term investment" (sic) or "risk management", see *Warrant Investor Survey* March 2006, available at [http://www.sfc.hk/sfc/doc/EN/speeches/public/surveys/06/06pr43\\_report.pdf](http://www.sfc.hk/sfc/doc/EN/speeches/public/surveys/06/06pr43_report.pdf) (visited 15 Mar 2006).

<sup>12</sup> Hong Kong law makes gaming unlawful and gaming transactions void except as provided in the Gambling Ordinance, Cap 148, which also states at s 29 that listed "contracts for difference" and contracts traded on a futures exchange are not subject to its general prohibition. Instruments and transactions subject to the SFO are excluded from the provisions of the Gambling Ordinance (SFO s 404, and Sch 1 Pt I) and thus not made void under its general prohibitions unless the SFC declares otherwise. Earlier in *Richardson Greenshields of Canada (Pacific) Ltd v Keung Chak-kiu and Hong Kong Futures Exchange Ltd* [1989] 1 HKLR 476 Sears, J stated at 485 that "[w]hat occurs either on the Exchange floor, or between broker and client, is not gaming. Further, it cannot be classified as gambling, that is betting." While the case involved contracts that are not subject to the intense promotion associated with today's covered warrants, the user was an individual engaged in speculation and had no hedging motives.

an underlying asset. While warrants can be linked to any asset or index for which there exists a market price, they now take two basic forms depending on whether or not the warrant is issued by the obligor of the underlying asset or by an unconnected third party, usually a bank or securities house. The latter, known as covered (or derivative) warrants, are popular among Hong Kong retail users.<sup>13</sup> Such warrants are regarded as securities under the SFO while not necessarily being specifically defined by its terms.<sup>14</sup>

Warrants targeted at retail buyers became popular in 1970s Euromarket transactions. One warrant might accompany at issue a nominal amount of bonds, entitling the holder to buy a set number of issuer shares at a fixed price, for example, or the right to acquire more bonds on pre-determined terms. Since value could be ascribed to the warrants, their inclusion in a transaction as sweeteners in this way could be applied to lower the issuer's nominal funding cost compared to a simple debt issue. Moreover, the warrants could be detached from the host bonds, then bought or sold separately at a relatively low nominal price so as to appeal especially to risk-preferring retail investors, usually distinct from investors in the now "naked" bonds. Institutional investors would generally trade in warrants only if they were incorrectly priced, since they were commonly made inherently costly to the buyer when matched against the trading performance of their underlying assets.

### C. Covered Warrants

Covered warrants are tradable option contracts issued as discrete transactions by parties with no ownership connection to the obligor of the underlying asset or risks.<sup>15</sup> In the form common in Hong Kong, a bank<sup>16</sup> will issue covered warrants for cash payments (premiums) that entitle the holder, upon exercising the warrant prior to its expiry, to receive from the issuer a cash amount that reflects the change, if any, in market performance of the underlying asset.

<sup>13</sup> This article discusses covered warrants as those issued by third parties for cash premiums without control of an underlying share or market risk. "Derivative warrant" is the term chosen for covered warrants by the Stock Exchange of Hong Kong (HKEx) but is used only in Hong Kong and Thailand. Formerly in Hong Kong (i) in the mid-1990s "covered" could refer to warrants whose issuer was also the issuer of underlying shares; (ii) "non-collateralised" warrants were issued by third parties unconnected to the underlying asset and were first issued and listed in 1989; and (iii) in 1994–97 "call spread" warrants were popular with retail buyers and are similar in construction to today's covered warrants. See nn 29 and 34 below.

<sup>14</sup> SFO, Sch 1, Part I: 1.

<sup>15</sup> Covered warrants were once considered controversial by many listed companies because of a connotation of third party control of issues linked to their shares.

<sup>16</sup> Permissible issuers are set out in the HKEx listing rules (LR) for structured products at Ch 15A, albeit ambiguously. All issuers are currently banks in the colloquial sense but not all are authorised institutions under the Banking Ordinance, Cap 155, s 2(1). See s V(C) below. "Authorised institutions" are organisations licensed by the HKMA to engage in certain activities related to deposit taking in Hong Kong (Banking Ordinance, s 2), which the Banking Ordinance defines as banking, see s III(A), and nn 43 and 44 below. The listing rules are available at <http://www.hkex.com.hk/rule/listrules/listrules.htm> (visited 15 Mar 2006).

Settlement is determined by a formula contained in the warrant terms that will include a fixed strike price and the prevailing price of shares in a listed company or group of companies. Other common covered warrants offer risks linked to changes in exchange rates and market segments represented by indexes. Any such payment represents the net gain at the time of the warrant being exercised, so that if the underlying asset fails to perform in the way specified by the warrant's terms then the warrants will expire unexercised and worthless.<sup>17</sup> Whereas traded option contracts require the holder to meet exchange mark-to-market margin and collateral requirements, the payment obligation of the warrant holder is confined to payment on acquisition of the upfront premium or secondary market offer price.

Issuers actively manage option risk exposures associated with outstanding warrants by hedging with trades in the underlying asset and derivatives of that asset, including the warrants. The exercise of a covered warrant has no effect in itself on the number of underlying shares in issue; the existence of covered warrants may but need not influence trading in their underlying assets and in any event is unlikely to do so in a consistent or easily observable fashion.<sup>18</sup> In most cases warrant holders carry no post-issue payment liability: the original warrant holder's upfront premium payment will be more than sufficient to compensate for the absence of the collateral margin that would be required with a comparable futures or option position on an exchange.

#### *D. Option-Related Risks*

Regardless of structure, covered warrants confer no credit risk against an underlying asset.<sup>19</sup> Further, despite the clear presence of transactional market risk, covered warrant holders have no contractual claim against an issuer of underlying assets. The sole obligor under the warrants will be the bank arranging the issue, and the bank is alone responsible in how it chooses to hedge the market risk associated with its payment commitment whenever a warrant is profitably exercised according to the preset formula. The warrant holder may gain exposure to the price performance of an underlying share, but its claim is met by the resources of the issuing bank. Covered warrants thus represent a risk anomaly among derivatives, in that they are bought and

<sup>17</sup> SFC data show that 55% of Hong Kong covered warrants issued after listing rule changes in January 2002 and expiring prior to September 2005 were worthless at expiry. As warrants are tradable instruments this is not a true guide to losses incurred by holders. See [http://www.sfc.hk/sfc/doc/EN/speeches/public/bulletin/sfc\\_bulletin/autumn05\\_feature2.pdf](http://www.sfc.hk/sfc/doc/EN/speeches/public/bulletin/sfc_bulletin/autumn05_feature2.pdf) (visited 15 Mar 2006).

<sup>18</sup> The effect depends on hedging behaviour, which can augment liquidity in the underlying asset. Issuer profits arise from differences in the costs associated with hedging their day-to-day liability to warrant holders and the terms offered to those holders. It relates mainly to differences in the implied volatility of warrants and that of their underlying assets.

<sup>19</sup> Covered warrants differ from those credit derivatives and credit-linked obligations that create a synthetic credit risk against underlying assets.

sold on organised exchanges but unlike other exchange-traded option contracts involve credit risks unrelated to the exchange. This places supervisory attention on two aspects of investor protection. First, issuer capital adequacy, regulated in Hong Kong by the HKMA, and second, the quality and integrity of risk management systems that enable the bank to manage risk exposures acquired through issuing warrants, a function theoretically assumed by HKEx. It also highlights the warrant holder's need for market liquidity, which the exchange does not directly provide.

A rise in the volatility of an underlying asset's price, that is, the amount by which the price fluctuates in a given period, is correlated positively to the value of all options. This forms the basis for most conventional option pricing models, which rely largely on estimates of implied volatility. It also explains the common regulatory requirement for banks to use value-at-risk (VAR) models to determine capital requirements for option-based risks.<sup>20</sup>

#### E. Modelling VAR

The conventional approach to assess the risk exposure of derivatives for banking capital adequacy purposes treats derivatives as extensions of credit by assuming that they may be assessed as loans. This transformation, which can be mathematically complex and beyond the risk management capability of many financial institutions, seeks to determine a risk equivalent amount for any derivative portfolio, comprising a general mark-to-market value and an estimate of future changes in value due to specific factors during an instrument's remaining life. Since 1993, practice in advanced regulatory regimes has been increasingly that the second component be calculated by modelling VAR. Subject to regulator approval, banks are typically allowed discretion in their use of such models, both in methodology and input data, but in common with its peers the HKMA makes certain minimum demands.<sup>21</sup> The cases that helped generate this regime span several risks: Barings was broken by operational and regulatory errors; Long-Term Capital Management (LTCM) fell after a failure of predictive risk management.<sup>22</sup> Quantifying event risk is an unending challenge for all current market risk models.<sup>23</sup>

<sup>20</sup> See s IV(B) below.

<sup>21</sup> See HKMA supervisory policy manual *Use of Internal Models to Measure Market Risk* (CA-G-3) 2002, available at <http://www.info.gov.hk/hkma/eng/bank/spma/index.htm> (visited 15 Mar 2006).

<sup>22</sup> LTCM's valuation models assumed historic volatilities that were irrelevant in the 1998 Russian domestic bond market collapse, to which LTCM was heavily exposed, and may have used probability distributions giving little likelihood to the recurrence of unusually large shocks (see n 64 below). An account of LTCM's fall appears in *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management, Report of the President's Working Group on Financial Markets* (Washington DC, US Department of the Treasury Office of Financial Market Policy, 1999), available at <http://www.ustreas.gov/offices/domestic-finance/financial-markets/fin-market-policy/> (visited 15 Mar 2006).

<sup>23</sup> US General Accounting Office, *Report to Congressional Requestors on Long-Term Capital Management*, 1999, available at <http://www.gao.gov/new.items/gg00003.pdf> (visited 15 Mar 2006).



Capital requirements to address market risk were reviewed in all advanced jurisdictions following the collapse of Barings. The result was an agreed framework to address such risks for both securities firms and banks through the 1996 market risk amendments to the 1988 Basel Capital Accord.<sup>24</sup> More broadly, this draws on 1995 amendments to the Basel accord that require regulated banks to meet qualitative and quantitative criteria so as to demonstrate acceptable prudence, transparency and consistency in risk management. The concept of competence in risk management has recently been introduced into certain of these matters, for example, in a screen set out in the HKEx listing rules and said to be used in assessing potential warrant issuers.<sup>25</sup> This article will argue that the regulatory regime for covered warrants requires HKEx to be competent in both these respects, covering capital adequacy and risk management, functions with which the manager of an order-based exchange (with no history of assessing capital adequacy or associated issues of risk management) has neither traditional involvement nor informed resources.

### III. Hong Kong's Warrant Fervour

The distinct characteristic of derivative activity in Hong Kong is an emphasis on leveraged retail-orientated instruments with low entry costs, that is, those intended for transaction in small nominal amounts by individuals and not generally confined to those with significant disposable resources, unlike in centres where warrant activity is established but less prolific. This has come to be associated with prolific attention in both traditional and new media, heavy promotional marketing for new issues, and by notable volumes of issuance and turnover in covered warrants listed on the main board of HKEx. By contrast, exchange-traded options are dealt by professional or high net worth investors and are not prominent in Hong Kong.<sup>26</sup>

Globally, warrants are usually issued for longer maturities than other forms of option contracts but they have become prominent in Hong Kong's retail market in relatively short maturities of up to two years.<sup>27</sup> Retail warrant issues are typically tied to Hong Kong or other prominent equities, share indexes or foreign currencies. They have become so actively bought and sold that the

<sup>24</sup> The Basel II Accord will continue to apply this framework, while giving more prominence to internal risk management models.

<sup>25</sup> LR Ch 15A.11. See s V(B) below.

<sup>26</sup> See n 34 below.

<sup>27</sup> The 2-year tenor dates from 1990s stock exchange investor protection rules at the time of the first issues of non-collateralised share warrants. See n 13 above. Current listing rules set a maximum maturity of 5 years for most "structured" products including covered warrants and a minimum of 6 months for all. See LR Ch 15A.38.

trading volumes of Hong Kong warrants was the world's highest in 2003 and 2004; HKEx covered warrant turnover greatly exceeds all other exchanges except those in Germany and Italy.<sup>28</sup>

For Hong Kong users, the popularity of covered warrants<sup>29</sup> partly reflects their low nominal issue price and high inherent leverage compared to individual shares or baskets of shares. It may also be influenced by laws that limit the domestic channels available for gaming.<sup>30</sup> The most striking growth in issuance and trading volume has occurred since 2001, when changes to HKEx's listing rules made the issue of covered warrants swift, simple and inexpensive when underlying assets are themselves listed. The "tap" issue of additional warrants through the reopening of an existing issue was later made equally simple, which has since become controversial due to investor protection concerns.<sup>31</sup>

In the year to end-September 2005 HKEx listed 1,628 new covered warrant issues (1,145 in the comparable prior period) for a total premium consideration of HK\$162.7 billion (US\$20.9 billion), which represented a rise of over 29 per cent from the comparable prior period. As at 30 September 2005 the market in covered warrants was valued at HK\$139.5 billion (US\$17.9 billion), a nominal increase of 126.1 per cent over the total for twelve months earlier. Turnover in covered warrants in the year to end September 2005 rose by a nominal 66.0 per cent over the comparable period to total HK\$782.6 billion (US\$100.5 billion).<sup>32</sup>

Warrants listed in Hong Kong tend to have shorter lives than their European equivalents. Of 376 warrants listed in the second quarter of 2005, only seven had expiry dates falling beyond 2006. In the first half of 2005, the amount raised by newly listed covered warrants represented 32.4 per cent of the aggregate proceeds raised on the exchange, and more than three times

<sup>28</sup> Among other common law jurisdictions, covered warrants are well established only in Australia and Singapore and are prolific in none. HKEx 4th quarter 2005 US\$31.5 billion covered warrant turnover was over 25 times and 17 times greater than in Australian and Singapore, respectively, in the same period (end-2005 exchange rates; sources, Australia Stock Exchange, *Financial Times*, HKEx, Singapore Exchange). Warrant activity in Hong Kong is high relative to exchange turnover, new issue proceeds, per capita income and saving, and by comparison with all other exchanges. Contrary to the SFC Report's assertion "most international markets" do not sustain sizeable dealings in covered warrants, see s I.13 pp 12–13. It should be noted that in active markets, turnover flows from issuers, not only from end-users; issuers accounted for about 73% of turnover in the first ten months of 2005, see SFC Report s 10 p 3. Turnover is also somewhat inflated by new issue commissions paid to brokers acting as sales agents.

<sup>29</sup> HKEx's choice of term may reflect an investor protection concern, that "covered" could imply options against which the issuer was perfectly hedged at all times. This could only be the case if the issuer always held underlying assets equal to the amount indicated by the number of warrants outstanding, and would rarely, if ever, be profitable for the issuer.

<sup>30</sup> See n 12 above.

<sup>31</sup> See ss V(D) and VI(A) below.

<sup>32</sup> Source: HKEx. The data for turnover and new issues include amounts relating to equity warrants but these have always been trivial.

the total proceeds of listed debt securities.<sup>33</sup> The number of covered warrants listed on HKEx has exceeded the number of listed stocks since April 2005: while this echoes the position prevailing for many years in Germany, for example, the aggregate amount raised by Hong Kong warrant issues is far higher in relation to funds raised on the exchange through new issues of shares.<sup>34</sup>

#### *A. Issuance and Investor Protection*

Hong Kong practice is that covered warrants are given effect by a "base listing document" prepared as an umbrella for all transactions introduced to the exchange by any single issuer.<sup>35</sup> These documents, written under Hong Kong law, provide a framework for individual transactions and delineate the rights and duties of the issuer. Each proposed transaction requires the issuer to prepare brief term sheets describing its main commercial conditions; on completion that short document forms a supplement to the base listing document. Together they constitute the entire presentation to the exchange in respect of a transaction listing, subject to information on the issuer's overall financial condition being kept current in the base listing document.

HKEx revised its listing rules for covered warrants in 2001 to provide concessions to issuers and arrangers over documentary requirements, the reopening of existing issues, and aspects of disclosure, including:

- Lowering the minimum warrant launch market capitalisation to HK\$10 million (US\$1.3 million).
- A maximum launch market capitalisation of HK\$100 million (US\$12.8 million).

<sup>33</sup> But note that funds raised by share placements were exceptionally high in June 2005 at HK\$45.6 billion (US\$5.9 billion).

<sup>34</sup> No similar derivative instrument has been successful in Hong Kong. Equity warrants occupy a modest corner of the HKEx main board, whether measured by issuance or turnover: 27 such warrants were listed as at end-September 2005, compared to 1,192 covered warrants, see <http://www.hkex.com.hk/data/markstat/mkthl200507.htm> (visited 15 Mar 2006). Equity warrants are obligations of the legal entity issuing shares to which they give leveraged risk exposure, and their exercise will usually cause the issue of new shares. Earlier forms of equity warrant were listed by HKEx from 1989, under rules relaxed to capture issuance from overseas markets. HKEx allows equity warrants in respect of shares listed on "another regulated, regularly operating, open stock market recognised by the Exchange" but none now exist, see LR Ch 15.05. The exchange has also listed equity-linked instruments since 2004 in the form of structured notes of up to two years' maturity. These give option-related exposure to single stocks but only a handful is listed and trading is moribund. Last, as of 31 October 2005, options on no more than 42 stocks, all substantial companies, were traded on the Hong Kong Futures Exchange. "Instalment warrants" involving staggered payment of premiums are permitted by HKEx listing rules (see LR Ch 15A.06(6)) but are almost unknown in Hong Kong due to administration costs and the preference of retail participants for low nominal premiums and short maturities.

<sup>35</sup> HKEx listing rules prescribe the information content of such umbrella documents: see LR Vol 2 App 1D. They borrow ISDA practice for OTC contracts so as to permit issues, in particular further issues of existing transactions, to be made speedily.

- The maximum number of a company's shares to which warrants can be linked is the lesser of 30 per cent of the public share float or 20 per cent of issued share capital.
- Further issues freely permitted, subject to a limit for each of HK\$100 million.
- No requirement to provide detailed information on the underlying company on application for listing or thereafter.
- The issuer is not required to disclose other outstanding warrant issues, nor of its dealings in underlying shares.<sup>36</sup> However, dealings by the issuer or its associates in the issuer's warrants must be reported daily to HKEx.

At the same time the exchange created a requirement intended to favour the warrant holder, by making new issues include provision for the appointment of a "liquidity provider" to act as a conditional buyer of last resort.<sup>37</sup> This represents a departure for a traditional order-based exchange, although the prescribed duties of a liquidity provider are less onerous than those that practitioners would regard as "market making" and less reliable than general retail investor expectations, despite which both HKEx and SFC use the terms synonymously.<sup>38</sup> Nonetheless, the most realistic description appears from the SFC, which warns that "the role of liquidity providers is often misunderstood. Liquidity providers *are only required to ensure some minimal liquidity* in the market as and when it is needed,"<sup>39</sup> but in doing so neglects to explain exculpatory circumstances when the requirement is relaxed. Both the performance of liquidity providers and their identity when not part of the issuer's corporate group have been regularly criticised by users and popular commentators. It is also notable that the responsibilities of liquidity providers and the circumstances in which they function vary from issue-to-issue, which is scarcely synonymous with providing clarity for users.<sup>40</sup> The requirements to provide liquidity made of exchange participants designated by covered warrant issuers are fuller and more homogeneous in Australia, London and Singapore, for

<sup>36</sup> Changes of detail to this requirement are proposed in the SFC Report at pp 54–57.

<sup>37</sup> LR Ch 15A.23 and the Rules of the Exchange as at 1 Nov 2005 Sch 16, available at <http://www.hkex.com.hk/rule/exrule/exrule.htm> (visited 15 Mar 2006), see s V(C) below.

<sup>38</sup> For example, HKEx press release *HKEx Discusses Derivative Warrants and Invites Feedback*, 10 Oct 2005, available at <http://www.hkex.com.hk/news/hkexnews/2005.htm> (visited 15 Mar 2006); see also *Getting Grounded in Warrants*, available at SFC website [http://www.eirc.hk/eirc/html/EN/teachers/case\\_alternative\\_getting.htm](http://www.eirc.hk/eirc/html/EN/teachers/case_alternative_getting.htm) (visited 15 Mar 2006), which asks, "How does the warrant market-making system work?" and replies "Derivative warrant issuers must appoint a liquidity provider (or generally called market maker) to provide liquidity for its warrants."

<sup>39</sup> Emphasis added. See *Derivative Warrants Are Not For Everyone*, SFC article, June 2004, available at [http://www.eirc.hk/eirc/html/EN/features/doctor/features\\_87\\_226\\_299.htm](http://www.eirc.hk/eirc/html/EN/features/doctor/features_87_226_299.htm) (visited 15 Mar 2006). The SFC Report (s VII.231, p 69) bemoans retail buyers' lack of understanding of these aspects of the listing rules, see s VI(B) below.

<sup>40</sup> Proposals relating to liquidity providers are a constructive feature of the SFC Report, see n 3 above and s VI(B) below.

example, and in each case would be more fairly regarded as market-making than in Hong Kong.<sup>41</sup>

Most issuers can be expected to be banks but not necessarily authorised institutions regulated by the HKMA.<sup>42</sup> Unsurprisingly, base listing documents consistently provide that the warrant holder, as such, is deemed to be a general creditor of the issuer and thus not a depositor, so as to avoid a holder being granting any rights over those amounts flowing from a regulated bank-depositor relationship.<sup>43</sup> Nonetheless, in commercial terms the entity represented by the "bank" and by the issuer will be indistinguishable. Further, it is common for base listing documents to state that the issuer is not regulated by the HKMA and SFC in respect of its obligations under covered warrants, which might be regarded as a highly literal expression of a technical distinction.<sup>44</sup>

The listing rules require that base listing documents be updated annually or upon "a significant change affecting any matter contained in the listing document", where "significant" is given a meaning linked to a warrant holder being able to make "an informed assessment" of "the assets and liabilities and financial position of the issuer and of the structured products".<sup>45</sup> This is well intentioned, and it may be both impossible and undesirable to provide otherwise. Yet this is language customary in documenting major transactions among sophisticated organisations, and it is difficult to see how a retail user could assess the overall creditworthiness of the issuer, or in relation to its complex structured product liabilities, when the existence and nature of issuance and hedging is a matter of commercial confidentiality.

For example, a number of 2005 addenda to base listing documents refer to the risks for the issuer of pending or threatened litigation associated with

<sup>41</sup> Each exchange requires the warrant issuer or its nominee exchange member to undertake that it will maintain at least a continuous bid price during the life of a warrant, see Australian Stock Exchange website at [http://www.asx.com.au/investor/warrants/how/market\\_making.htm#](http://www.asx.com.au/investor/warrants/how/market_making.htm#), UK Listing Authority website at <http://fsahandbook.info/FSA/html/handbook/LR/19/4>, and Singapore Exchange website at [http://www.sgx.com/psv/structured\\_warrants/SW\\_Investing.shtml#Section\\_5](http://www.sgx.com/psv/structured_warrants/SW_Investing.shtml#Section_5) (all visited 15 Mar 2006).

<sup>42</sup> See n 16 above.

<sup>43</sup> Base listing documents commonly provide further that warrants do not constitute a debt obligation. For example, a Base Listing Document dated 30 May 2005 for which Macquarie Bank Ltd is issuer states at p 14 and elsewhere that "[w]arrants represent general contractual obligations of the Issuer, and are not, nor is it the intention (expressed, implicit or otherwise) of the Issuer to create by the issue of warrants deposit liabilities of the Issuer or a debt obligation of any kind." This example and all base listing documents are posted to the HKEx website, see HKEx Investment Service Centre; Listed Companies Information Search; Base Listing Documents available at <http://www.hkex.com.hk/listedco/listconews/sehk/search.asp> (visited 15 Mar 2006). Macquarie Bank, not an authorised institution, was in 2005 among the most prolific issuers of covered warrants. Hong Kong's retail deposit insurance scheme is expected to become operational only in late 2006 under the Deposit Protection Scheme Ordinance 2004, Cap 581.

<sup>44</sup> For example, a Hongkong and Shanghai Banking Corporation Ltd Base Listing Document dated 1 Aug 2005 states at p 1 that the issuer, except as an authorised institution "is not regulated by the bodies referred to in Rule 15A.13(2) or (3) of the [Listing] Rules" namely the HKMA, an overseas regulatory authority "acceptable to HKEx", or the SFC in respect of securities dealing in Hong Kong.

<sup>45</sup> LR Ch 15A 66.

highly complex cases such as those involving Enron Corp. and Parmalat SpA, each in summary terms. The HKMA may be able to assess such factors, but HKEx and the warrant holder must inevitably rely on reputation risk and remote judgement, given imperfect disclosure.<sup>46</sup> Issuers are required to inform potential investors that structured products are inherently risky, but the warning relates to market risk and issue structure, not to the credit risk of the issuer. Moreover, there are no HKEx or SFC requirements that comparisons be shown between the rights and obligations of warrant issues, especially as to commercial terms for like underlying assets, the commitments of issuers and liquidity providers.

Investor education material published by the SFC recommends that warrant holders make their own assessment of the credit risk of any issuer, but simultaneously seeks to assure participants that the territory's regulatory regime may be relied upon in this respect.<sup>47</sup> This would appear to risk confusion as to the relative status of deposit and warrant-related claims against issuers that are authorised institutions, or those colloquially known as banks but not formally treated as such in Hong Kong. More generally, the SFC states concern at the level of understanding of covered warrants among retail users, but pleads that it has "conducted extensive investor education" on the subject.<sup>48</sup> The SFC Report commends that still greater effort be given to this aspiration but makes no suggestion as to how disclosure requirements might be altered to assist the retail user in assessing a warrant portfolio or new issue, nor to rebalance the asymmetry in information available to warrant holders and issuers.

The covered warrants outstanding as at end-October 2005 were attributable to 18 issuers, all of which could be popularly regarded as banks.<sup>49</sup> Two were locally incorporated licensed banks and 13 were licensed banks incorporated outside China (including Hong Kong). Three were not authorised institutions.<sup>50</sup> Only five of the total currently engage in general retail banking in Hong Kong<sup>51</sup> but others in the group are affiliated to commercial banking interests elsewhere. The market is concentrated, with four to five issuers now responsible for the greater share of both turnover and warrants outstanding.<sup>52</sup>

All 18 issuing organisations are well known in major financial markets, but not necessarily to the Hong Kong public except by name or reputation. Most are prominent traders in global derivatives markets. Other than issues

<sup>46</sup> HKEx's difficulties in these aspects of risk management are addressed in s V below.

<sup>47</sup> See SFC Report p 8, *ibid.*, Ch VII, and n 3 above.

<sup>48</sup> *Ibid.*, ss 43–44 p 8.

<sup>49</sup> The SFC Report refers to 19 extant issuers but two are arms of one bank, Crédit Suisse.

<sup>50</sup> They were licensed as securities dealers under the SFO.

<sup>51</sup> ABN Amro Bank NV, Bank of China (HK) Ltd, Citibank NA, DBS Bank (HK) Ltd and Hongkong and Shanghai Banking Corporation Ltd.

<sup>52</sup> For example, at end-January 2006, 6 issuers accounted for 67.2% of outstanding warrants, and 84.9% of January's turnover took place in warrant of 5 issuers (source: HKEx).

for which the underlying asset was a stock index, no issue represented a claim against an entity affiliated with the issuer of an underlying asset.

### *B. Investor Interfaces*

Banks deploy intense efforts to market and distribute retail-targeted derivative instruments. New issues are given marketing emphasis in newspaper, online and broadcast advertising and promotional seminars, which are governed in part by the SFO, including sanctions against publicity originating from unlicensed sources.<sup>53</sup> HKEx listing rules for structured products allow the distribution of promotional material to potential investors prior to listing.<sup>54</sup> While the considerable media and marketing attention devoted to covered warrants is relatively recent in origin, the supply of these issues appears to meet well-established demand.

Newly listed warrants are sold by both agent brokers and securities dealer affiliates of issuer banks. The latter also often serve to meet HKEx guidelines in providing a limited and variable degree of trading liquidity on the exchange.<sup>55</sup>

The factors explaining the warrant market's growth may include:

- A relaxation in HKEx listing rules for covered warrants in after 2001.<sup>56</sup>
- Secular declines in general share price and interest rate volatility, which together tend to limit investor expectations of gains from share trading.
- Weakened confidence in smaller listed Hong Kong companies due to concerns over poor corporate governance.
- A collapse in the market for HKEx "penny" stocks in July 2002 upon rumours of mass delisting.<sup>57</sup>
- Low nominal entry prices for investors in warrants compared to those of underlying shares to which they are linked.
- Limited lawful channels for gaming.

Since a holder can lose on any warrant trade no more than its premium, low nominal prices may also encourage the belief that individual losses are modest. The origin of the structure most often adopted by Hong Kong's covered warrant

<sup>53</sup> SFO, s 103(1).

<sup>54</sup> This may conflict with the SFC's intention to restrict the distribution of research material prior to share listings, but is admittedly a manifestation of a broader matter.

<sup>55</sup> In most cases issuers and their respective liquidity providers are affiliated, but as at 6 March 2006 issuers had appointed for commercial reasons third party securities dealers for almost 239 of 1,376 outstanding warrants. In all cases these were "local" retail-orientated brokers. Of 24 designated liquidity providers, 10 were unaffiliated with issuers, of which 6 were independent and 4 part of larger companies. Source: HKEx. The SFC proposes to prohibit independent liquidity providers, see SFC Report, p 52 and s V(C) below.

<sup>56</sup> See s III(A) above.

<sup>57</sup> See R. Kotewall and G. Kwong, *Report of the Panel of Inquiry on the Penny Stocks Incident*, 2002, chronology in Annex 7.1, available at <http://www.info.gov.hk/info/pennystock-e.htm> (visited 15 Mar 2006).

market since 2002 is in call spread equity warrants, which are simple warrant issues tied to the performance of third party shares. In order to make the product appeal to retail users, arrangers will often minimise the warrant's premium but make leverage as high as the share's underlying volatility allows. This means that in normal circumstances the warrant's profit potential is reduced relative to the implied volatility of the underlying share. It also suggests that the issuer's hedging performance during the life of the issue reflects a higher true share price volatility than that built into the warrant, the difference being a source of economic rent for the issuer.

No-one can know how covered warrant issuance might respond to a prolonged bear market in Hong Kong equities or to sustained increases in interest rates. In any event, the profitability of this sector is likely to be eroded by new entrants, which suggests that forthcoming structures will need to be novel or offer greater leverage to have ongoing appeal to the small investor. Hong Kong's recent twin phenomena of prolific warrant issuance and turnover will not continue in its present form, for example, if speculative retail trading in shares were to regain popularity, or if general confidence were to fall materially in the underlying equity market. Here, perhaps is the potential for the market eventually find a different emphasis, or fail.

#### IV. Regulatory Precepts

Today's approach to the regulation of all financial derivatives has two universal intentions: to require that capital adequate to cover losses is maintained by regulated financial institutions, and to prevent and penalise mis-selling, market manipulation and other forms of misconduct. Capable risk assessment and management are prerequisites to the former. This section examines the first of these concerns, and the second in relation to the narrower matter of disclosure.

Regulatory attention for both OTC and exchange trade derivatives is directed at professional participants and only indirectly at products, an approach seen throughout Hong Kong financial market regulation. OTC derivatives are unusual in this respect in that they receive similar treatment globally. This results from two factors. First, capital-regulated banks were until recently the dominant users of global OTC derivatives, making national regulators believe that their oversight was sufficient providing the jurisdictions under which banks operate could penalise fraudulent selling to non-bank clients.<sup>58</sup> Second, ISDA lobbied successfully for enactment of the US Commodity Futures Modernization Act in 2000,<sup>59</sup> which exempted OTC derivatives from regulation by the federal agency that supervises futures and

<sup>58</sup> Concern has grown since 2003 with the extensive use of derivatives for credit risk transfer by lightly-regulated hedge funds.

<sup>59</sup> Appendix E of PL 106-554, 114 Stat 2763.



commodities exchanges. ISDA's skill in promoting standardisation in swap market practice, documentation and settlement was important in this decision, and effectively ended pressure for direct regulation of OTC derivative products, both in the United States and elsewhere. Under this arrangement, covered warrants represent an anomaly since they are typically regulated as exchange-traded instruments but share with OTC derivatives the risk qualities that regulation addresses by focussing on capital adequacy.

#### A. General Risk Considerations

HKMA guidelines<sup>60</sup> for the treatment of derivative risks by banks in Hong Kong are based on a seminal 1993 report of the Group of Thirty consultative group of bankers and economists (G30), which was to initiate global practice in this area of risk and regulation.<sup>61</sup> The report identified seven risk categories that may impact upon derivative use, recommending how they might best be measured, monitored and mitigated. In essence this was an effort to stabilise industry practice by a clutch of major banks, whose internal risk systems had been endorsed by regulators. Some of the risks identified by G30 are now addressed systemically, for example, by exchange mark-to-market margin calls, and others by rule. They apply in all respects to OTC derivative instruments.

The G30 recommendations induced harmonised practice among national regulators including the HKMA and SFC, and caused VAR models to become the conventional means to estimate the risk sensitivity of asset and liability portfolios and entire risk-adjusted balance sheets. G30 standards require that banks establish sound risk management systems that are integrated into decision-making, including regular stress testing to assess model performance.<sup>62</sup> VAR methodology measures unexpected portfolio losses by probability distribution analysis<sup>63</sup> but is an incomplete risk management tool, in that while it can assess portfolio performance in certain conditions and thus provide guidance for capital adequacy, it is unable to suggest what extreme conditions may be.<sup>64</sup>

<sup>60</sup> Appearing most recently in the HKMA's policy manual CR-G-12 (for credit derivatives), 2001, available at <http://www.info.gov.hk/hkma/eng/bank/spma/index.htm> (visited 15 Mar 2006).

<sup>61</sup> Group of Thirty, *Derivatives: Practices and Principles* (Washington, DC, 1993).

<sup>62</sup> Stress testing attempts to determine biases associated with risk measures relying on historic data. The tests simulate unexpected changes in market behaviour and evaluate the resulting effect on portfolio valuation.

<sup>63</sup> The use of standard deviations of expected returns to indicate volatility began with modern portfolio theory (see H. Markowitz "Portfolio Diversification" (1952) 1 *J Finance* 77. The distribution can be generated however the bank chooses, subject to the HKMA's satisfaction with the model's integrity.

<sup>64</sup> The "fat tail" problem. The reliability of probability distributions in predicting extreme events was first attacked in the early 1960s by Benoit Mandelbrot, a father of chaos theory. That no model is stable in predicting asset prices (implying that extreme shocks cannot be reliably predicted) explains the modern regulator's willingness to allow banks to choose which distributions to use for these purposes, as well as the principle that capital adequacy focuses upon damage limitation. Yet this concept may itself not admit the possibility of recurrent exceptionally high price changes and volatility, such as those seen in the US equity markets in October 1997 and August 1998, or a rapid series of shocks in markets considered to be uncorrelated by historic data, but to which any single bank might be simultaneously exposed. Together with questions of disclosure affecting lightly-regulated hedge funds, this problem was central in the collapse and moratorium of LTCM, see n 22 above.

### B. Specific Risks

The G30 report identified seven risk categories, shown in the following table.

Risk type <sup>65</sup>	Comments and examples
Credit	(i) Pre-settlement credit risk: pre-termination defaults. (ii) Settlement risk: default at the contract end-date.
Market	Changes in the value of underlying assets.
Liquidity	(i) Market liquidity risk: shallow markets preventing execution. (ii) Funding liquidity risk: mismatched or scarce funding.
Operational	Systems, human or management errors.
Legal	Unenforceability.
Regulatory	Failure to meet regulatory or legal requirements.
Reputation	Loss of confidence.

Each affects retail participants as much as regulated banks, most particularly market, liquidity and credit risks. Some risks may be contractually mitigated, for example, by centralised exchange dealing or mark-to-market margins customarily imposed by futures exchanges. Market risk is the most closely examined category, the assessment of which dictates how capital is held against derivative contracts entered by banks and securities firms. The G30's recommendation<sup>66</sup> in relation to market risks included the suggestion that risk takers use "a consistent measure to calculate daily the market risk of their derivatives positions and compare it to market risk limits."

Thus for example, since 2002 the HKMA has required that for banks dealing in credit derivatives "the market risk . . . in the trading book should be managed by measuring portfolio exposures frequently – at least daily but ideally in real time – using value-at-risk or other similarly robust methodology."<sup>67</sup>

This imperative, together with the corollary requirement to establish VAR and other risk limits, is central to current practice in Hong Kong. It is indirect in regulatory focus by giving attention to product providers rather than instruments, and accepts the delegation of supervision to the subject's home regulator. It also implicitly affects the performance assessment of risk management by banks and securities houses operating outside the direct ambit of the HKMA and SFC. For example, issuers of listed covered warrants are said by HKEx to be considered in respect of their "risk management systems and procedures." Of necessity, this assessment may in practice be informed by other bodies.<sup>68</sup>

<sup>65</sup> See Group of Thirty, *Derivatives: Practices and Principles* (n 60 above).

<sup>66</sup> *Ibid.*, "Recommendations for General Policies, 5: Measuring Market Risk"

<sup>67</sup> See HKMA CR-G-12 manual s 2.2.3.

<sup>68</sup> See LR Ch 15A.11.

HKMA's approach was described in June 1998 in words anticipating the concept's formalisation in the second Basel capital accord.

"we are prepared to give institutions the opportunity to economize still further on the use of capital by allowing those who are qualified to do so the alternative of using their own internal statistical models to calculate the capital requirement . . . However, modelling is not an exact science. The model has to be right for the particular situation that is being modelled and the data that is fed into models obviously must be accurate. That is why the controls surrounding the use of models are extremely important and why models should be subject to rigorous backtesting to compare the expected changes in portfolio value generated by the model with the changes that actually occurred."<sup>69</sup>

This is laudable, but arguably describes the infeasible. It also questions whether an understanding of complex risk management practice can be expected of retail derivative users, and whether typical non-professional participants can differentiate the quality of such practices among bank and non-bank issuers. If not, it would seem that the retail user is reliant upon the regulator to provide its assessment of risk.<sup>70</sup> A second consequence is that individual users require the warrant market to sustain adequate, accessible trading liquidity.

### C. Other Risks

Hong Kong regulation considers the credit risk associated with covered warrants only in the context of the minimum rating requirement placed on potential issuers, which is loose by comparison with banking risk management practice.

Finally, derivatives have also been associated with unquantifiable legal risks, especially fraud, mis-selling and transaction enforceability. Globally, most examples from case law involve professional counterparties or major organisations, ignoring a small number of Hong Kong cases relating to gaming.<sup>71</sup>

<sup>69</sup> D. Carse "Supervision and Disclosure of Derivatives Trading in Hong Kong", 23 June 1998, available at <http://www.info.gov.hk/hkma/eng/speeches/index.htm> (visited 15 Mar 2006).

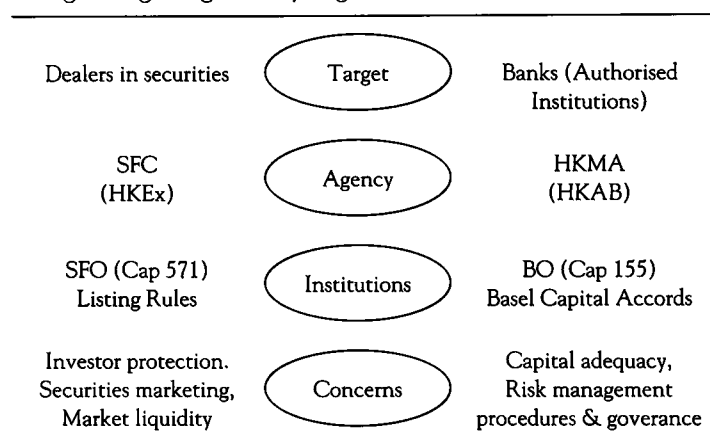
<sup>70</sup> A dissident might argue that the effective subordination of retail warrant claims to retail deposit claims described above in s III(A) is thus morally indefensible, especially in view of Hong Kong law's view of financial derivatives in relation to gaming, see nn 12 and 16 above.

<sup>71</sup> Notably *Richardson Greenshields of Canada (Pacific) Ltd v Keung Chak-kiu and Hong Kong Futures Exchange Ltd*, see n 12 above. Most 1990s international cases cover fraud and mis-selling, including those involving Gibson Greetings Inc, Minmetals International Metals Trading Co, Orange County municipal authority, and Procter and Gamble Co. More recently, litigation has begun involving alleged mis-selling of derivatives, but no case has been decided: most prominently, HSH Nordbank AG settled a claim against Barclays Capital Ltd, having alleged mis-selling (see "CDO case settled but not forgotten" *Financial Times* 14 June 2005). The notable example of contract unenforceability is of the UK local authorities, which were prolific 1980s derivatives users. A recent example of insider trading arose with the failure of China Aviation Oil (Singapore) Corp in November 2004 after oil derivative trading losses exceeding US\$550 million ("CAO Singapore Parent Will Pay Fine as Part of Civil Settlement" *Asian Wall Street Journal*, 22 Aug 2005).

## V. Hong Kong's Regulatory Focus

Hong Kong conforms in its treatment of financial derivatives to the principle that regulatory attention is split between marketing and selling, trading practices, and capital adequacy. The division of responsibilities and their supporting authorities among Hong Kong regulators is little different to the pattern seen in major financial centres, and is illustrated in the following figure.<sup>72</sup>

Figure 1: Hong Kong's regulatory regime for derivatives



For securities activities, the SFC licenses and regulates stock exchange participants as to conduct and statutory compliance while HKEx is responsible for supervision of its listing rules.<sup>73</sup> Here is the seed of a regulatory gap for covered warrants, which are exchange-traded but for which scrutiny is effective only by considering banks and bank behaviour in terms of capital adequacy, risk management and aspects of transaction disclosure.

Hong Kong's attempts to match regulation to financial technology include refining the working arrangements and allocation of responsibility between the HKMA and SFC. The findings of the UK enquiry into the fall of Barings had a profound and ubiquitous effect on financial regulation. In particular, it suggested that bank regulators were in want of a close understanding of non-banking activities in which the banks they supervise engaged, including securities and derivatives trading.<sup>74</sup> Historically, it had been accepted that a bank failure could be systemically crippling but the collapse of a securities

<sup>72</sup> HKAB is the Hong Kong Association of Banks, a trade association to which is delegated limited functions under the Banking Ordinance.

<sup>73</sup> The SFC assumed these regulatory responsibilities from HKEx in 2001 by means of a "memorandum of understanding", provisions then written into the SFO at ss 4–5. See also <http://eapp01.sfc.hk/apps/cc/pressrelease.nsf/eng/lkupnewscode/01pr16?opendocument> (visited 15 Mar 2006).

<sup>74</sup> See UK Board of Banking Supervision *Barings report*, n 9 above, paras 13.56–13.70.

firm would have few indirect consequences. Barings changed this perspective, as did the erosion of the divide typical in common law jurisdictions between banks and securities dealers, and a widening in the alternatives for credit risk transfer. In Hong Kong, this concern prompted cross-references between the Banking and Securities and Futures ordinances, and the creation in 1995 of an operational memorandum of understanding between the HKMA and SFC to encourage their cooperation and allow exchanges of information on their respective charges.<sup>75</sup>

The delineation of supervisory interests illustrated here causes few difficulties for traditional financial products, traded, sold or managed in untroubled markets. However, it is less clear that a bifurcated regime could cope fully with a collapse in prices or liquidity of newer products in times of stress, especially given Hong Kong's retail-targeted derivative emphasis. Bank issuers of covered warrants, however they elect to be licensed in Hong Kong, are regulated with especial attention to capital adequacy and internal procedures for operations and risk management. The last two functions are central in covered warrant activity, given the complex dynamic hedging needed to sustain a profitable business model.<sup>76</sup>

#### *A. Statutory Treatment*

The scope of direct SFC interest in derivatives is confined to those treated as "securities" or "futures contracts", defined by the SFO to include in the case of securities: "rights, options or interests (whether described as units or otherwise) in, or in respect of . . . shares, stocks, debentures, loan stocks, funds, bonds or notes,"<sup>77</sup> and "certificates of interest or participation in, temporary or interim certificates for, receipts for, or warrants to subscribe for or purchase, . . . shares, stocks, debentures, loan stocks, funds, bonds or notes." Where such shares, stocks, debentures, loan stocks, funds, bonds or notes are themselves securities, and in the case of futures contract, "a contract or an option on a contract made under the rules or conventions of a futures market."

The SFO gives the Financial Secretary flexibility to declare for its purposes any instrument to be either a security or future.<sup>78</sup> This could include, for example, instruments based upon underlying assets that were not securities,

<sup>75</sup> Available at [http://www.info.gov.hk/hkma/eng/bank/sup\\_coop/HKMA-SFC\\_MoU\\_eng.pdf](http://www.info.gov.hk/hkma/eng/bank/sup_coop/HKMA-SFC_MoU_eng.pdf) (visited 15 Mar 2006). The most recent version was released in March 2004.

<sup>76</sup> For simplicity, Figure 1 omits certain secondary facts. First, foreign regulators have a remote interest in the Hong Kong operations of banks for which they hold primary responsibility, while HKEx and the SFC have functions relating to disclosure and governance among locally listed companies under the Companies Ordinance (Cap 32). Second, not shown is the treatment by HKEx and the SFC of hedging by banks inasmuch as it arises from exchange trading with third parties, nor how the SFC regards investor protection issues relating to bank risk, given that covered warrants are not considered under the Banking Ordinance. These are not necessarily system flaws but matters of regulatory coverage that are prominent, subject to current discussion, and not addressed in law.

<sup>77</sup> SFO, Sch 1.

<sup>78</sup> *Ibid.*, s 392.

such as foreign exchange contracts, indexes or baskets of claims. More generally, the practical result of the SFO is that exchange traded derivatives can always be expected to be subject to some form of SFC oversight, regardless of underlying asset, and that OTC derivatives will not be subject to SFC supervision, even though it might appear plausible in some cases. This accords with practice in most common law jurisdictions where OTC derivatives are prominent.

### *B. HKEx Risk Management*

Two issues are central in HKEx's approach to risk management.<sup>79</sup> First, the assessment and monitoring of participants whose activities it must supervise, especially when they involve the deployment of risk capital. Second, scrutiny of listing applications, and the task of ensuring that instruments that become listed conform with the exchange's rules and the requirements of law established by the SFO. The results are seen in how HKEx contributes to informing Hong Kong's banking and securities regulators as to exchange-based risk activity, and in details of investor protection, especially through disclosure requirements to assist Hong Kong's risk-preferring retail segment.

Both aspects of the HKEx risk management focus are dealt with in its listing rules, which reflect its status as a commercial non-statutory body. There is a division of regulatory responsibilities for banks and securities firms between the HKMA and SFC, notwithstanding the post-Barings cooperation arrangements. Yet oversight by HKEx is separate, however close may be its contact with the SFC and regardless of links written into the banking and securities and futures ordinances, since it hosts a large number of derivative transactions arranged by banks dealing in securities, for which it requires certain functions to be performed as a condition of listing.

### *C. Requirements of Issuers*

A small unit of HKEx oversees listing compliance, and declares itself as ensuring "prudent management of market risks" by issuers.<sup>80</sup> The listing rules for structured issues, including covered warrants, demand that:

"An issuer must be suitable to handle or capable of issuing and managing a structured product issue and listing. In assessing the suitability or capability of an issuer the Exchange will have regard to, inter alia, its previous experience in issuing and managing the issue of other similar instruments and whether it has satisfactory experience to manage the potential obligations under the structured product issue. Where listing of non-

<sup>79</sup> Given that where necessary the HKEx margin systems deal effectively with credit risk.

<sup>80</sup> Available at [http://www.hkex.com.hk/exchange/org/management\\_team.htm](http://www.hkex.com.hk/exchange/org/management_team.htm) (visited 15 Mar 2006).

collateralised structured products is sought the Exchange will consider the issuer's risk management systems and procedures."<sup>81</sup>

It is unclear whether in either case HKEx has the resources directly so to do, other than by inference or a judgement as to reputation. Further, the rules stipulate that:

"While a transaction is listed, its issuer must maintain minimum capital and reserves of HK\$2.0 billion (US\$258.1 million); and must either be (i) rated no lower than single-A by one credit rating agency "recognised" by the exchange; (ii) regulated by the HKMA or a foreign counterpart "acceptable" to the exchange; (iii) regulated by the SFC as to securities dealing in Hong Kong; or (iv) a sovereign issuer.<sup>82</sup> If the issuer meets none of these conditions then a listing may be granted to an issue guaranteed by a satisfactory third party."<sup>83</sup>

By these criteria, an unrated securities dealer could theoretically become liable as obligor for an uncollateralised, structured, retail-orientated issue. The average size of issues introduced to the exchange in the first half of 2005 was only HK\$101.5 million (US\$13.1 million), but on average more than five began trading on each business day of the period.

Crucially, the resources to make these assessments do not lie within HKEx, and while the exchange may enjoy cordial relationships with non-governmental official agencies, it remains a commercial entity with concomitant objectives and interests, is party to no formal operational agreement with any agency in this specific regard, and its main body of rules lack support in law.<sup>84</sup>

The post-2001 requirement that a single "liquidity provider" be appointed for each listed issue of covered warrants is an anomaly for a traditional order-based exchange, however common elsewhere. It represents an investor protection device that is well intentioned but incomplete, and for which the operational requirements are opaque. The listing rules require that issuers "provide liquidity in each . . . issue and shall describe in . . . the base listing document or supplemental listing document how it proposes to provide that

<sup>81</sup> LR, Ch 15A.11.

<sup>82</sup> "Sovereign" is treated here more loosely than in accepted bank credit risk practice and as defined by the Basel accords.

<sup>83</sup> LR, Ch 15A.12–14.

<sup>84</sup> The legal status of the listing rules has drawn comment since the SFO was enacted as well as in pre-enactment consultation, for example, see S. Goo, "Corporate Dimensions of the Securities and Futures Ordinance" (2003) 33 *HKLJ* 271. See also s VI(B) below.

liquidity. The method adopted must be transparent and must be acceptable to the Exchange.”<sup>85</sup> And explain in accompanying notes that:

“The issuer must specify in the listing documents when it will . . . and when it will not provide liquidity . . . In normal circumstances, an issuer shall provide liquidity . . . from five minutes after the market has opened until the market closes. The issuer must specify in the listing documents the minimum quantity of warrants for which it will provide liquidity (a minimum of 10 lots), the maximum spread between its bid and offer prices, the time within which it will respond to [telephone] requests for quotes.”<sup>86</sup>

In normal conditions, this is incomplete, and lacks transparency for the retail user and any pretence of price tension through competition. As proscribed by HKEx, the commitment to provide liquidity suggests but falls short of both conventional market-making and the duty of a buyer of last resort. It is a qualified obligation that varies among issuers and issues.<sup>87</sup> In a disrupted market the concentration of issuer obligors and the role of insubstantial brokers could also be concerns. The function of these participants is a question most subject to popular controversy due to the suspicion that warrant issuers enjoy high monopoly profits, fears of market manipulation, and the chagrin of brokers at losing control of retail business to warrant issuers.<sup>88</sup>

Given that information on liquidity providers and their contractual commitments varies among issues and is cumbersome to find at the exchange’s website, it may seem unreasonable for HKEx or SFC to be vexed that retail warrant users lack an understanding of their role.<sup>89</sup> Issuer websites can be far more sophisticated and complete in the pricing and structural information they provide to non-professional participants than is the exchange.

#### *D. Manipulation*

Market manipulation is taken to be any attempt to skew an organised market to a participant’s advantage. Inherent leverage and low costs of entry make organised exchanges amenable to manipulative practices such as squeezes, cornering, spreading false rumours or direct price fixing.<sup>90</sup> In general, if the

<sup>85</sup> LR, Ch 15A.22. See also Ch 15A.01.

<sup>86</sup> Extracted from LR, Ch 15A.22 nn 1–5.

<sup>87</sup> *Ibid.*, Vol 2, App 1D. See also HKEx rules, Sch 16 available at <http://www.hkex.com.hk/rule/exrule/exrule.htm> (visited 15 Mar 2006) and see s III(A) above.

<sup>88</sup> See SFC Report Ch VII for an outline of participants’ complaints. “HK Warrant Overhaul” *International Financing Review* 26 Nov 2005, 1611, p 45 notes that complaints as to manipulation often stem from full-time non-professional warrant traders.

<sup>89</sup> See most recently SFC Report s 231, p 69.

<sup>90</sup> Categories acknowledged in legal analysis of US commodities market practice, see L. Edwards and F. Edwards “A Legal and Economic Analysis of Manipulation in Futures Markets” (1984) 4 *J Futures Markets* 3, 333; J. Williams *Manipulation on Trial: Economic Analysis of the Hunt Silver Case* (Cambridge: Cambridge University Press, 1995), pp 6–7.



law defines market manipulation, it does so in terms of intent, actions or consequences, or a combination of these factors. The SFO confines its definition of market manipulation to offers, quasi-offers and transactions intended to influence both prevailing prices and the ensuing behaviour of third parties,<sup>91</sup> and sets a narrow definition of proscribed manipulative action similar to the applicable Australian federal statute on which it is based.<sup>92</sup>

By contrast, both the applicable US federal code and European Union Commission directive on market manipulation are fuller in scope and in identifying prohibited techniques.<sup>93</sup> Furthermore, the UK Financial Services and Markets Act 2000 invokes the concept of a reasonable professional market participant to create a definition of what constitutes market manipulation<sup>94</sup> and grants powers to the Financial Services Authority (FSA) as regulator of the Act that allow certain market activity to be proscribed despite not being asserted as manipulative.<sup>95</sup> While the subject of this article is instruments settled for cash, concerns of covered warrants being subject to price manipulation have attracted heightened media attention at intervals in 2004/2005, even though cash settlement mitigates against such activity.<sup>96</sup> Both the SFC and HKEx have held enquiries into manipulative practices, concluding always that the market and its regulation are broadly sound.<sup>97</sup>

Covered warrant issuance can be conspicuously profitable, due in part to information asymmetries between professional and retail users. This may help explain recent media attention as to the possibility of manipulative trading practices.<sup>98</sup> In response, HKEx has been defensive, its statements lacking substance and failing to address concerns directly, however much they reflect misapprehensions. For example, a statement released in September 2005 said:

<sup>91</sup> SFO, s 278.

<sup>92</sup> Corporations Act 2001 ss 997, 1041A and 1259. Note that the scope of SFO, s 278 is expansive in a different aspect of manipulation, conducted in Hong Kong but on a overseas exchange.

<sup>93</sup> 15 USC 2B para 78i and 2003/124/EC, respectively.

<sup>94</sup> See s 118(2).

<sup>95</sup> For example, the FSA so declared in the case of a trading strategy in European government bonds conducted in 2004 by Citigroup Global Markets Ltd (Citigroup). In June 2005, the FSA concluded that the strategy (known as ramping, in this case involving the accumulation of a long futures position, followed by the simultaneous sale of that position and creation of a substantial short position in cash securities) was neither manipulative (despite the prior futures position) nor reckless, but nonetheless fined Citigroup using its broad powers under the Act. See Financial Services Authority final notice 28 June 2005, available at <http://www.fsa.gov.uk/Pages/Library/Communication/Notices/Final/2005/index.shtml> (visited 15 Mar 2006). The decision has been criticised as opaque by market professionals and commentators. It appears that the SFO (ss 4–6) confers authority on the SFC similar to that available to the FSA, despite being unspecific as to what constitutes manipulation.

<sup>96</sup> See n 7 above. This matter is unconnected to allegations heard in 2005 that trading in covered warrants induced unwanted volatility in the share market, and in particular led to substantial unwarranted falls in share prices.

<sup>97</sup> See SFC press release in September 2005 and HKEx on 11 October 2005 available at <http://eapp01.sfc.hk/apps/cc/PressRelease.nsf/eng/lkupNewsCode/05PR201?openDocument> 2005 and <http://www.hkex.com.hk/news/hkexnews/051010news.htm>, respectively, (both visited 15 Mar 2006).

<sup>98</sup> For example, "Hong Kong Debates Volatility" *Asian Wall Street Journal* 16 Sept 2005, "Hong Kong Regulators Probe Warrant Market" *Asian Wall Street Journal* 12 Sept 2005.

"HKEx has noticed increased interest in its derivative warrant market in the last six months. HKEx closely monitors its derivative warrant market along with all its other markets. The Listing Division monitors warrant issuance while the Exchange Division monitors trading in the warrant market. Misconduct such as market manipulation is prohibited by the Securities and Futures Ordinance. HKEx has referred information on instances of irregularity in respect of derivative warrant trading to the Securities and Futures Commission and will continue to do so. HKEx is committed to investor education and will continue to allocate resources to help further increase investors' understanding of the products traded on its markets."<sup>99</sup>

This appears to offer little to those concerned with issue structure, disclosure or the role of the exchange in promoting issue standardisation or trading liquidity.

## VI. Regulatory Gaps

While banks engaged in securities activities are regulated as to capital adequacy and supervised as to risk management by the HKMA, it is unclear that HKEx has effective authority in relation to issues of securities made by such organisations, whose capital may be located and supervised overseas, and for which the listing rules simply demand appropriate systems and skills that HKEx cannot alone judge. Of paramount concern is whether HKEx is competent in all relevant aspects of these matters, and whether the retail participant is made reasonably able to quantify the risks of dealing in covered warrants. How well suited are the links between regulators and the exchange to the supervision of covered warrant activity and to investor protection?

Gaps in regulatory structure for certain instruments, and a lack of impartiality and specialist resources reveal HKEx as a quasi-self-regulatory organisation lacking sufficient product expertise to perform adequately. Effective SROs rely on having unrivalled insight of a market segment, for example with the International Capital Market Association, ISDA, or the UK Takeover Panel.<sup>100</sup> This is not the case here.<sup>101</sup> Furthermore, the conflict

<sup>99</sup> Available at <http://www.hkex.com.hk/news/hkexnews/2005.htm> (visited 15 Mar 2006).

<sup>100</sup> The first is an SRO in Switzerland and the UK. Its main predecessors, the International Primary Market Association and International Securities Market Association, were SROs of long standing. The UK Takeover Panel's status is expected to change this year to accord with European Union directives.

<sup>101</sup> The report on the 2002 penny stock debacle describes an alleged lack of commercial awareness within HKEx, and of resulting communications problems between SFC and HKEx, reporting evidence that: "the middle level or even senior staff in the HKEx were not experienced commercial people and were not sufficiently sensitive about the market. Some thought that, generally speaking, the market sense which one should be able to expect from an organization such as the HKEx was markedly lacking. There were also complaints from certain trade associations that the HKEx staff did not understand the operation of the Hong Kong stock market." See Kotewall and Kwong (n 57 above) s 11.13.

inherent in having a single profit-seeking entity in this role was recognised in the UK when the FSA assumed the London Stock Exchange's regulatory functions in relation to its listing rules.<sup>102</sup>

This article does not contend that only professional investors can be appropriately informed in buying or selling instruments carrying risks as complex as covered warrants, whether or not the underlying asset is a well-tracked share. However, the requirement that health warnings be posted on warrant literature appears inadequate when the buyer can rarely be equipped to make an informed judgement as to the balance of risk and return associated with any issue, and if price and other market information is not readily and uniformly available. When regulatory responsibility for the principal risks of warrant transactions is divided, and consigned partly to a commercial organisation lacking appropriate will or resources, then expectations of the completeness of coverage may be unmet. The conceptual problem with this market segment is thus that covered warrants are sold only to retail buyers but Hong Kong's regulatory regime looks only secondarily at financial products or instruments. It exists regardless of how mis-selling is treated under the SFO, the severity of any SFC enforcement action for mis-selling and other breaches of acceptable practice by exchange members or their representatives, and of the professional qualifications required of those representatives.

The approach taken by the HKMA since the mid-1990s has been to support the international harmonisation of practice standards and adopt an increasingly high level of sophistication in its bank supervisory activities so as to be sensitive to the needs in the territory of those major banks that deal in complex products. Thus the HKMA intends to allow the banks for which it is responsible to adopt the internal assessment options provided in Basel II, even though those able to do so will be few.<sup>103</sup> In this way the HKMA hopes to promote the sophistication of Hong Kong as a financial hub, and makes itself a useful resource to guide the less sophisticated banks operating in the territory, many of which are counterparties of leading derivative houses.

By contrast, HKEx performs a vetting role for which it lacks own resources. With covered warrant issuance, listing approval is ultimately at the discretion of HKEx but the framework is porous. This is contrary to the intention of international standards for risk management and supervision to which the HKMA, for example, adheres. It is questionable that in a time of significant market stress, the HKMA or SFC could be confident of "lending" compensatory resources to HKEx. It may be inevitable that a cross-matrix oversight structure requires HKEx to be informed by others to meet the requirements set out in its listing rules. Nonetheless, the exchange may also rely on assessments of

<sup>102</sup> Under the Financial Services and Markets Act 2000.

<sup>103</sup> The Banking (Amendment) Ordinance 2005 came into effect on 15 July 2005 and provides for the HKMA to implement by order the new capital adequacy regime.

reputation risk and presumptions as to internal system performance that have yet to be fully tested.

#### A. SFC Proposals

The SFC Report commends actions to improve the functioning of markets that resemble sections of an official April 1998 enquiry into the previous year's abnormal market volatility.<sup>104</sup> The need to rehearse points made nearly six years earlier on trade reporting, disclosure, and investor protection and education suggest that the advice was ignored or proven wanting. The suggestion that the listing rules for covered warrants be amended with a view to lessening volatility in the underlying share market took place in late 2001, but it is less clear that the intended corollary was realised, that is, to improve "transparency and investor's [sic] protection."<sup>105</sup>

The SFC Report appeared after a period of unusual media attention and puts forward proposals dealing mainly with transaction and trading mechanics. The more valuable deal with the listing rule requirements for liquidity providers but do so less in terms of setting appropriate standards and trading homogeneity than expressing the need for "investors" to grasp what a provider may be required to do.<sup>106</sup> The report is:

"concerned that many investors did not have a good understanding of the role of liquidity providers. Some investors complained [to the SFC] about liquidity providers not providing quotes while some complained that the quotes provided did not meet their expectations and hence they could not trade their derivative warrants. The complaints indicate a misunderstanding of the obligations undertaken by a liquidity provider under the listing document, particularly the fact that liquidity providers are not required to provide quotes on a continuous basis and that most opt to simply respond to requests for quotes (as they are entitled to do). In some circumstances, the liquidity provider is not obliged to provide quotes at all."<sup>107</sup>

Perhaps as a result:

<sup>104</sup> *Report on the Financial Market Review* (Government Financial Services Bureau, Hong Kong, 1998), published in mid-crisis 4 months' prior to the government's unprecedented appearance as buyer of last resort. Recommendations on the regulation of margin financing were later adopted in legislation.

<sup>105</sup> *Ibid.*, Ch 5 III(d) p 95. See also s III(A) above.

<sup>106</sup> The SFC Report relies on disingenuous terms, for example, to explain the reasons for "investing" in covered warrants (s 25, p 16). Thus retail users are "investors" throughout, notwithstanding the admission (s 96, p 35) that: "although [covered] warrants can be used as a risk management tool, they are more commonly used by retail investors as a short-term speculative instrument. While the latter is a legitimate use, it may not really be suited to unsophisticated investors given the (sic) complex pricing mechanism."

<sup>107</sup> *Ibid.*, s 231, p 69.

“unsophisticated investors also tend to place far more emphasis on the turnover in a [covered] warrant than on its pricing mechanism. They rely heavily on the daily turnover as a guide for assessing liquidity without fully understanding why a particular derivative warrant might suddenly have become popular.”<sup>108</sup>

Indeed:

“many [retail investors] find the concept of implied volatility, and hence its impact on the price of derivative warrants, difficult and therefore do not refer to it when investing in derivative warrants.”<sup>109</sup>

This signifies a flaw in regulation. Furthermore, if a regulator believes that retail users lack this form of “good understanding” it would seem to reflect a principle that is at variance with standardised practice typically associated with organised exchanges. Instead, the report promises proposals to strengthen control of warrant marketing and the use of simple language, but is silent as to deepening or making standard requirements for issuer disclosure.<sup>110</sup> The report’s approach is that warrants are instruments in legitimate use, but fails to note that as retail-targeted products they are inessential to risk management. Contrary to the SFC’s assertion, most major jurisdictions wholly or largely dispense with their use.<sup>111</sup>

The approach echoes the SFC’s view that the sell off of penny stocks in July 2002 was caused by “an over-reaction to proposals for market consultation that were unfortunately taken to be as policy changes.”<sup>112</sup> In Hong Kong’s flourishing covered warrant market, there appears to be a conflict between the principles of regulation and high levels of retail participation. The depth of investor knowledge cannot be held responsible for market and regulatory failings, indeed the extent of retail use of warrants demands that standards for disclosure and trading be properly drawn.

### *B. Questions and Concerns*

Of four major concerns now associated with derivatives, two are relevant to Hong Kong’s warrant market: how complex instruments are sold to retail users,

<sup>108</sup> *Ibid.*, s 97, p 35.

<sup>109</sup> *Ibid.*, s 224, p 67.

<sup>110</sup> SFR Report, ss 202–209, pp 63–63. The SFC indulges in obfuscation similar to that which it criticises, claiming at s 5, p 2 that warrants “cost only a fraction of the price of their underlying asset and . . . they provide a *much cheaper alternative* to investing in the underlying asset” (emphases added). Here the SFC confuses nominal and real costs, for “cheap” is a price made in relation to an assessment of value, not an indication that the asset is priced in cents or dollars. By contrast, in explaining “the significance of implied volatility” at s 9, p 3, the SFC uses “cheap” with a wholly different intention.

<sup>111</sup> *Ibid.*, s 13, p 13.

<sup>112</sup> Cited in Kotewall and Kwong (n 57 above) s 10.25, p 121.

and how advanced legal and regulatory environments deal with financial innovation?<sup>113</sup> A further separate issue is more peculiar to Hong Kong.

First, the hazards involved in the sale of certain financial products to retail participants is highlighted in a recent industry group study that has been broadly endorsed by the US Federal Reserve and other national regulators. This makes eight recommendations on the “suitability” of selling structured products to retail buyers, of which three deal explicitly with adequate disclosure.<sup>114</sup> Without reforms in relation to disclosure, the marketing of complex structured instruments may be prone to mis-selling due to questionable transparency. Hong Kong’s warrant market may only be moderately vulnerable in these respects, but as issuer profitability declines with competition from new entrants and a secular fall in equity market volatility, there is little doubt that more complex instruments will be marketed to meet prolific risk-preferring retail demand.

Second, how can law and regulation accommodate financial innovation without becoming unduly reactive or entangled in rules? A seminal example of the problem is that of the derivative activities of certain UK local authorities in the 1980s, which led to a decade of litigation, leading judgements that were widely seen to be at variance with market practice, and the fear, expressed by scholars as well as in press comment, that the initiating case would have a materially damaging effect on confidence in London’s financial sector.<sup>115</sup> Derivatives blur traditional divisions between instruments and the way that the law assesses the claims they may represent.<sup>116</sup> Derivative use may impact on claims and rights in ways not yet addressed in law or formal regulation, even though such effects are acknowledged in voluntary codes or by SROs. In the context of covered warrants, if the regulatory framework for their use is

<sup>113</sup> The third major concern arises from risk transfer conducted by banks and hedge funds using OTC derivatives. Finally, in certain leading centres, including London, Frankfurt and Sydney, there has grown concern over the use of OTC and exchange-traded equity derivatives by non-shareholders of acquisition target companies, in particular where their use may offend against established takeover market practice as to disclosure or voting rights. The controversy is well-explained in two UK Takeover Panel consultation papers, *Dealings in Derivatives and Options*, published in May and November 2005 and available at [http://www.thetakeoverpanel.org.uk/new/consultation/consultationpapers\\_previous.htm](http://www.thetakeoverpanel.org.uk/new/consultation/consultationpapers_previous.htm) (visited 2 May 2006). This question arises in Hong Kong mainly in the context of stock (equity) lending and is unrelated to the subject of this article.

<sup>114</sup> *Toward Greater Financial Stability: A Private Sector Perspective*, a report of the Counterparty Risk Management Policy Group II, 2005, s VI pp 139–145, available at <http://www.crmpolicygroup.org/> (visited 15 Mar 2006).

<sup>115</sup> The formative case was *Hazell v Hammersmith and Fulham London Borough Council and others* [1992] 2 AC 1, ruling derivative use to be *ultra vires* the local authorities except in limited circumstances and accordingly making void most outstanding contracts to which the authorities were party. London’s reputation as a financial centre “recovered” following later judgements providing contractual restitution, notably *Westdeutsche Landesbank Girozentrale v Islington London Borough Council* [1994] 4 All ER 890, [1996] 2 All ER 961. See also Goode (n 6 above) pp 53–57.

<sup>116</sup> That financial derivatives may represent a commercial practice as transforming as the creation of the joint-stock company is suggested by D. Bryan & M. Rafferty *Capitalism with Derivatives: a Political Economy of Financial Derivatives, Capital and Class* (Basingstoke, Palgrave Macmillan, 2006).

flawed, it may be preferable to reconsider their treatment in law and devise alternatives for regulation and the domain of trading. When small investors are heavily involved in trading highly geared instruments that resemble but are distinct from traditional equity claims, it is legitimate to ask what judgement needs to be applied in any ensuing market crises. The challenge to the law is to provide a relevant framework for such activity; the challenge to the regulator is not to abandon transparency and fairness when seeking financial stability.<sup>117</sup>

Third, risks associated with the covered warrant market contribute to the long-standing questioning of the status of the listing rules, which are private contracts that exclude from action the indirect beneficiary shareholder or creditor.<sup>118</sup> Yet even if the listing rules became actionable, the problem remains that they fail to set appropriate and homogenous standards in relation to covered warrants.

### C. Concluding Remarks

The faults identified in this article could be addressed in specific reforms or by adopting a fresh approach to a market that has more in common with gaming than financial sector activity. This might include:

- Giving fuller attention to clear standardised requirements for disclosure. This might usefully include a means for users easily to compare warrants. To date, the SFC and HKEx merely stress the need for investor education in these respects.
- Recognising warrants primarily as gaming instruments since they are directed almost entirely at retail participants; remove trading from the exchange and allow issuers to conduct OTC dealings subject to clear disclosure requirements, standardised provision of trading liquidity, prudential regulation by the HKMA, and supervision of selling by the SFC.
- Considering the public policy question of how the authorities might act in the event of a general price collapse. A crash and likely loss of

<sup>117</sup> See A. Crockett, "Why is Financial Stability a Goal of Public Policy?" 1997, paper presented to Federal Reserve Bank of Kansas City symposium "Maintaining Financial Stability in a Global Economy," Jackson Hole, Wyoming, August, available at <http://www.kc.frb.org/> (visited 15 Mar 2006).

<sup>118</sup> Notwithstanding the SFO granting the SFC's power in relation to market misconduct, see Goo (n 84 above). The author notes that the SFO drafters considered but failed to make misconduct a breach of the listing rules but provided a "partial solution" by allowing shareholders a right of action in respect of losses arising from market misconduct (*ibid.*, p 277). More broadly, derivative actions have been allowed only in cases involving connected transactions within public companies. Earlier, it had been suggested that cultural reasons and localised market externalities make it essential that the listing rules be given statutory effect, see B. Ho "Rethinking the System of Sanctions in the Corporate and Securities Law of Hong Kong" (1997) 42 *McGill LJ* 603–621, but this argument may have neglected the extent to which similar conditions prevailed elsewhere, for example, leading to changes in the supervision of the UK listing rules, see n 102 above.

confidence in the cash equity market could expose a potential moral hazard induced by the government's unprecedented share support venture in 1998, not least due to its present failure to require adequate disclosure. Furthermore, with deposit insurance likely to become effective in Hong Kong during 2006, the claim that warrants represent may be commercially indistinguishable from deposits to retail users, even though set apart contractually and in law. If an issuer bank fails, only custom offers clues as to the principle that the depositor wholly recovers on one unsecured claim but not the second.<sup>119</sup>

Unless it collapses, the retail covered warrant sector is likely to be replaced by something more complex. In its present form, retail protection might be better served if highly leveraged instruments designed largely for its use were identified as gaming tools, rather than investment vehicles. This might be temporarily inconvenient for professional users of warrants for hedging that is unrelated to warrant issues, but this is modest in scale and could be accommodated with other instruments, just as in most leading financial centres. Only gambling combines extreme retail popularity with monopoly rents. The notorious quotation at the opening of this article was made by a renowned speculator and it would be worthy now to find a means to make risky instruments available more fairly to small users.

<sup>119</sup> The Banking Ordinance provides that claims against and premiums paid to authorised institutions under transactions involving prospectuses registered under the Companies Ordinance such as covered warrants issues are not deposits, but deposits may include transactions where the principal amount is determined by a formula, see Banking Ordinance, s 2(1). If covered warrants were OTC transactions then the existing ordinances might be taken to regard them as deposits under the Banking Ordinance.